

Serial No. **10/649,954**  
Amdt. dated November 18, 2005  
Reply to Office Action of August 18, 2005

Docket No. **P-0533**

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Currently Amended) An active antenna system of a radio communication terminal comprising:

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an directional antenna that transmits and receives an RF communication signal to and from a base station communication node;

a sending end amplifying/filtering unit that amplifies and filters an RF communication signal to be transmitted through a duplexer;

a receiving end amplifying/filtering unit that amplifies and filters the RF communication signal received through the duplexer;

a closed loop control circuit that generates a control signal according to power of a transmission RF communication signal outputted from a sending end amplifying/filtering unit; and

a bias unit that separates the RF communication signal and a DC power transmitted from a radio communication terminal through a transmission line,

wherein the receiving end amplifying/filtering unit includes a variable amplifier that amplifies a reception RF communication signal as much as a variable gain according to a control signal, and

wherein the closed loop control circuit comprises:

a coupling unit that branches a transmission output from a final end of the sending end amplifying/filtering unit; and

a detection controller that generates a control signal according to a strength of power of the branched transmission output and applying the control signal to the variable gain amplifier.

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9. (Currently Amended) The system of claim 8, wherein the duplexer separates a transmission path and a reception path of a ~~n~~ RF communication signal at both ends of the sending end amplifying/filtering unit and the receiving end amplifying/filtering unit.

10. (Currently Amended) The system of claim 8, wherein the sending end amplifying/filtering unit and the receiving end amplifying/filtering unit comprise, respectively:  
a plurality of amplifiers that amplifies a transmission RF signal and a reception RF signal;

a filter that filters each signal between amplifiers; and  
a power supply unit that supplies power to each amplifier.

11. (Currently Amended) The system of claim 10, wherein the power supply unit supplies a DC power transmitted from the bias unit.

12. (Canceled)

13. (Canceled)

14. (Previously Presented) The system of claim 8, wherein the control signal makes

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the transmission output and the gain of the variable gain amplifier to be proportional to each other.

15. (Currently Amended) An antenna system of a radio communication terminal comprising:

~~an directional antenna that transmits and receives an RF communication signal to and from a base station communication node;~~

a sending end amplifying/filtering unit that amplifies and filters a transmission RF signal;

a receiving end amplifying/filtering unit that amplifies and filters a reception RF signal;

and

a bias unit that separates ~~an RF communication signal, a DC power and a control signal transmitted from the radio communication terminal through a transmission line,~~

wherein the control signal is applied to at least one of the sending and receiving end amplifying/filtering units to adjust a corresponding amplifier gain.

16. (Previously Presented) The system of claim 15, wherein the bias unit includes a band pass filter that passes a control signal among signals transmitted through the transmission line.

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17. (Original) The system of claim 15, wherein the sending end amplifying/filtering unit and the receiving end amplifying/filtering unit are connected to a duplexer separating a transmission path and a reception path at both ends.

18. (Currently Amended) The system of claim 15, wherein the sending end amplifying/filtering unit and the receiving end amplifying/filtering unit comprise, respectively:

a plurality of amplifiers that amplify a transmission RF signal and a reception RF signal;

a filter that filters each signal between amplifiers; and

a power supply unit that supplies power to each amplifier.

19. (Currently Amended) The system of claim 18, wherein the power supply unit supplies a DC power transmitted from the bias unit to the amplifier.

20. (Currently Amended) The system of claim 15, wherein at least one of the sending end amplifying/filtering unit and the receiving end amplifying/filtering unit include a variable gain amplifier that amplifies a reception RF signal as much as a variable gain according to a control signal.

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21. (Currently Amended) The system of claim 3 8, wherein the bias unit further comprises a filter that passes a signal meeting a predetermined filtering criteria.

22. (Previously Presented) An antenna system of a radio communication terminal comprising:

an antenna that transmits and receives a communication signal to and from a communication node through a communication link; and  
an amplifying unit integrated on a single board together with the antenna and that amplifies and filters the communication signal.

23. (Canceled)

24. (Currently Amended) A radio communication method comprising:  
transmitting and receiving an ~~RF~~ communication signal in an ~~directional~~ antenna to and from a communication node;  
amplifying and filtering an ~~RF~~ communication signal in a sending end amplifying/filtering unit to be transmitted through a duplexer;  
amplifying and filtering the ~~RF~~ communication signals in a receiving end amplifying filtering unit through the duplexer;  
generating a control signal according to power of a transmission ~~RF~~

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communication signal outputted from the sending end amplifying/filtering unit; and  
separating the RF communication signal and a DC power transmitted from a radio communication terminal through a transmission line,  
wherein generating the control signal comprises:  
branching a transmission output form a final end of the sending end amplifying/filtering unit; and  
generating the control signal according to a strength of power of the branched transmission output and variably controlling a gain of the receiving end amplifying/filtering unit based on the generated control signal.

25. (Currently Amended) The system of claim 8, wherein the ~~directional~~ antenna, the sending and receiving end amplifying and filtering units, the closed loop control circuit and the bias unit are mounted together on a same board.

26. (Currently Amended) The system of claim 15, wherein the ~~directional~~ antenna, the sending and receiving end amplifying and filtering units, the closed loop control circuit and the bias unit are mounted together on a same board.